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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte WILLIAM C. NEUBAUER, ROGER MATTILA, and ILIJA ILIJEVSKI

Appeal 2014-002600
Application 12/489,319
Technology Center 3700

Before BRANDON J. WARNER, LEE L. STEPINA, and FREDERICK C. LANEY, *Administrative Patent Judges*.

WARNER, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

William C. Neubauer et al. ("Appellants")[1] appeal under 35 U.S.C. § 134(a) from the Examiner's decision rejecting claims 1–2, which are all the pending claims. Appeal Br. 5. We have jurisdiction over the appeal under 35 U.S.C. § 6(b).

We REVERSE.

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[1] According to Appellants, the real party in interest is G&K-VIJUK INTERN. CORP. of Wellendingen, Germany. Appeal Br. 3.

CLAIMED SUBJECT MATTER

Appellants' disclosed invention relates to "forming informational items such as outserts," which are informational items "formed from a sheet of paper which is folded in two perpendicular directions," typically for association with pharmaceutical containers. Spec. ¶¶ 2–3. Claim 1, reproduced below with emphasis added, is the sole independent claim appealed and is representative of the subject matter on appeal.

> 1. A method of using a folding apparatus to form an outsert having product information printed thereon, said method comprising:
>
> (a) *applying a plurality of parallel lines of water* to a sheet of paper having a leading edge, a trailing edge, and product information printed thereon, *said parallel lines of water being applied by a plurality of spray nozzles* and being applied at positions at which folds are to be made;
>
> (b) making a first fold in a first direction in said sheet of paper with a first folding apparatus by a method comprising:
>
> (b1) feeding said sheet of paper in said first folding apparatus until said leading edge of said sheet of paper makes contact with a stop member of said first folding apparatus;
>
> (b2) continuing to feed said sheet of paper through said first folding apparatus with said leading edge of said sheet of paper in contact with said stop member referred to in paragraph (b1) so that an intermediate portion of said sheet of paper between said leading edge and said trailing edge forms a buckled portion; and
>
> (b3) continuing to feed said sheet of paper through said first folding apparatus to cause said buckled portion of said sheet of paper to pass between a first pair of folding rollers of said first folding apparatus to form a first fold in said sheet of paper in said first direction;

(c) making at least one additional fold in said sheet of paper in a direction parallel to said first fold and said first direction with said first folding apparatus to form a first folded article having a first end comprising a plurality of unfolded sheet edges, a second end comprising a plurality of unfolded sheet edges, and a maximum thickness, said at least one additional fold being made by a method comprising:

(c1) continuing to feed said sheet of paper through said first folding apparatus until a leading portion of said sheet of paper makes contact with a stop member of said first folding apparatus;

(c2) continuing to feed said sheet of paper through said first folding apparatus with said leading portion of said sheet of paper in contact with said stop member referred to in paragraph (c1) so that an intermediate portion of said sheet of paper between said leading portion and a trailing portion of said sheet of paper forms a buckled portion; and

(c3) continuing to feed said sheet of paper through said first folding apparatus to cause said buckled portion referred to in paragraph (c2) to pass between a pair of folding rollers of said first folding apparatus to form a fold in said sheet of paper in said first direction;

(d) making a fold in said first folded article in a second direction perpendicular to said first direction, said fold in said first folded article being made so that said first folded article is folded to form a second folded article having a first end comprising said fold in said first folded article and a second end comprising both said first and second ends of said first folded article and so that said second folded article has a maximum thickness of twice said maximum thickness of said first folded article, said fold in said first folded article being made by a method comprising:

(d1) feeding said first folded article in a folding apparatus until a leading portion of said first folded article makes contact with a stop member of said folding apparatus referred to in paragraph (d1);

(d2) continuing to feed said first folded article through said folding apparatus referred to in paragraph (d1) with said leading portion of said first folded article in contact with said stop member referred to in paragraph (d1) so that an intermediate portion of said first folded article between said leading portion of said first folded article and a trailing portion of said first folded article forms a buckled portion; and

(d3) continuing to feed said first folded article through said folding apparatus referred to in paragraph (d1) to cause said buckled portion of said first folded article to pass between a pair of folding rollers of said folding apparatus referred to in paragraph (d1) to form said fold in said first folded article in said second direction;

(e) making a fold in said second folded article in said second direction to form a third folded article having a first end comprising said fold in said second folded article, a second end comprising said fold in said first folded article, and a maximum thickness of twice said maximum thickness of said second folded article and four times said maximum thickness of said first folded article, said fold in said second folded article being made by a method comprising:

(e1) feeding said second folded article through a folding apparatus until a leading portion of said second folded article makes contact with a stop member of said folding apparatus referred to in paragraph (e1);

(e2) continuing to feed said second folded article through said folding apparatus referred to in paragraph (e1) with said leading portion of said second folded article in contact with said stop member referred to in paragraph (e1) so that an intermediate portion of said second folded article between said leading portion of said second folded article and a trailing portion of said second folded article forms a buckled portion; and

(e3) continuing to feed said second folded article through said folding apparatus referred to in paragraph

(e1) to cause said buckled portion of said second folded article to pass between a pair of folding rollers of said folding apparatus referred to in paragraph (e1) to form said fold in said second folded article in said second direction;

(f) making a fold in said third folded article in said second direction to form a fourth folded article having a first end comprising said fold in said third folded article, a second end comprising said fold in said first folded article, and a maximum thickness of twice said maximum thickness of said third folded article, four times said maximum thickness of said second folded article and eight times said maximum thickness of said first folded article;

(g) making a fold in said fourth folded article in said second direction to form an outsert having a first end comprising said fold in said fourth folded article and a second end comprising said fold in said first folded article and said fold in said third folded article, said fold in said fourth folded article being made by a method comprising:

(g1) feeding said fourth folded article in a folding apparatus using rollers until a leading portion of said fourth folded article makes contact with a stop member of said folding apparatus referred to in paragraph (g1);

(g2) causing a movable knife member of said folding apparatus referred to in paragraph (g1) to make contact with and push an intermediate portion of said fourth folded article towards a folding roller; and

(g3) continuing to feed said fourth folded article through said folding apparatus referred to in paragraph (g1) so that said intermediate portion of said fourth folded article makes contact with said folding roller referred to in paragraph (g2) to form said fold in said fourth folded article.

EVIDENCE

The Examiner relied on the following evidence in rejecting the claims on appeal:

Waterworth	US 1,716,936	June 11, 1929
Hoy	US 4,883,451	Nov. 28, 1989
Youngeberg	US 5,044,555	Sept. 3, 1991
Ishida	US 6,030,165	Feb. 29, 2000

REJECTION

The following rejection is before us for review: Claims 1–2 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Waterworth, Hoy, Youngeberg, and Ishida.

ANALYSIS

All the claims recite, in relevant part, a method of using a folding apparatus to form an outsert, where the method includes "*applying a plurality of parallel lines of water* to a sheet of paper," with "said parallel lines of water *being applied by a plurality of spray nozzles* and being applied at positions at which folds are to be made," followed by making various folds in the sheet of paper. *See* Appeal Br., Claims App. (emphasis added).

In rejecting the claims, the Examiner relies on Waterworth for disclosing a method of using a folding apparatus to make various folds in a sheet of paper, but acknowledges that Waterworth fails to disclose applying a plurality of parallel lines of water to the sheet of paper as claimed. *See* Non-Final Act. 3–9. For the limitation regarding the application of water to the paper, the Examiner first turns to Hoy for teaching this feature. *Id.* at 10

(citing Hoy, col. 1, ll. 5–7, 11–14, 43–50; Fig. 1). The Examiner also turns to Youngeberg for teaching "the concept of utilizing a self-cleaning nozzle in a water-spraying assembly." *Id.* (citing Youngeberg, Abstract).

As the requisite articulated reasoning for this combination, the Examiner states that it would have been obvious to a person of ordinary skill in the art at the time of the invention to "integrate the Hoy apparatus with the Waterworth machine in order to prepare the paper for subsequent folding by the Waterworth machine." *Id.* (citing Hoy, col. 2, ll. 51–52). The Examiner also states that "the use of Youngeberg['s] self-cleaning nozzles *in association therewith* would have the distinct advantage of providing a self-cleaning mechanism, thereby significantly reducing required maintenance procedures." *Id.* (emphasis added).

Appellants argue that the rejection is deficient because Hoy does not teach applying water through "a plurality of spray nozzles," as required by the claims. *See* Appeal Br. 13–15. In particular, Appellants acknowledge that Hoy teaches a water scoring technique in which fluid is applied to the paper through needle assemblies in a continuous bead or line, but assert that such a technique is different from the claimed method in which fluid is applied to the paper through spray nozzles as fine droplets of liquid. *Id.* at 13–14. We agree with Appellants that these techniques of applying water to the paper are different.

The Examiner's interpretation of Hoy's needle assemblies as being "spray nozzles," as claimed, is overly encompassing. Although Hoy's needle assemblies reasonably could be characterized as "nozzles," these recited structural elements are modified by "spray." In short, the Examiner's interpretation of "spray nozzles," without sufficient consideration to the

modifier "spray,"[2] is unreasonably broad and effectively reads out of the claim the constraint mandated by this modifier. *See Stumbo v. Eastman Outdoors, Inc.*, 508 F.3d 1358, 1362 (Fed. Cir. 2007) (denouncing claim constructions that render phrases in claims superfluous).

Moreover, Appellants' Specification discloses that, in a water scoring process, "a plurality of spray nozzles *or other apparatus* could be used to spray *or otherwise apply* a plurality of parallel lines of water" to make subsequent folding better or easier. Spec. ¶ 118 (emphasis added). Thus, although the Specification broadly discloses that water scoring may be accomplished by various techniques (perhaps even including the needle assemblies of Hoy within the mentioned "other apparatus"), the claims are constrained to only a particular technique—namely, "spray nozzles."

Although we appreciate the possibility of the Examiner's position that "one *could reasonably conclude* that each of [Hoy's] needles falls within the common definition of a 'spray nozzle,'" this position is not supported by the evidence of record. Ans. 12 (emphasis added). Notably, Appellants submitted a Declaration under 37 C.F.R. § 1.132 of Mr. Jeffrey Adesko, one of skill in the art of paper folding and finishing, dated January 12, 2011 (the "Adesko Declaration," submitted with the Appeal Brief as "Appendix B"), which provides evidence that one of ordinary skill in the art would have

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[2] We note that Appellants posit that the term "spray" indicates a "diffuse spray of water droplets" (Appeal Br. 16), which the Examiner does not dispute (*see* Ans. 12). This understanding comports with plain meanings of "spray" as "water flying in small drops or particles" or "a jet of vapor or finely divided liquid." *See Merriam-Webster's Collegiate Dictionary* (11th ed. 2003). Accordingly, "spray nozzles," in the context of the claim language, would be nozzles that apply or discharge parallel lines of water as a spray.

considered the water scoring techniques performed by Hoy's needle assemblies and the present invention's spray nozzles to be distinct. *See* Adesko Declaration ¶¶ 7–11. In the Answer, the Examiner does not direct us to any evidence that would contradict the statements of the Adesko Declaration.

Appellants also argue that the rejection is deficient because the Examiner's combination of Youngeberg with Waterworth and Hoy is not properly supported. *See* Appeal Br. 15–17. In particular, Appellants persuasively assert that "it would not have been obvious to modify Hoy to include the spray nozzles of Youngeberg[,] or any other spray nozzle for that matter." *Id.* at 15. We agree with Appellants that the rejection does not sufficiently explain why a person of ordinary skill in the art would substitute the entire self-cleaning spray nozzles from Youngeberg in place of the needle assemblies of Hoy. Although we appreciate the Examiner's rationale that Youngeberg's self-cleaning feature may be advantageous, incorporation of this benefit into Hoy's system does not adequately explain the wholesale replacement of needle assemblies (which facilitate one technique for water scoring) for self-cleaning spray nozzles (which facilitate a different technique for water scoring). *See* Ans. 15 (clarifying incorporation of Youngeberg's entire "compact unit"); Appeal Br. 16–17.

In other words, the Examiner has not sufficiently articulated reasoning based on rational underpinnings as to why one skilled in the art would have been prompted to combine the teachings of Waterworth, Hoy, and Youngeberg in the manner proposed. *See KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007) (stating that "rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some

articulated reasoning with some rational underpinning to support the legal conclusion of obviousness" (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006))). Here, in response to Appellants' arguments, the Examiner states the conclusion that "it would have been obvious to a person of ordinary skill in the art at the time of the invention to apply the teachings of one [reference] to the other interchangeably," without factually establishing that such proposed interchangeability is possible between these two techniques for water scoring. Ans. 13. Acknowledging that the cited references individually teach the recited features, we note that a claim "composed of several [features] is not proved obvious merely by demonstrating that each [feature] was, independently, known in the prior art." *KSR Int'l Co.*, 550 U.S. at 418. Rather, a sustainable obviousness rejection further needs to explain the reasoning by which those findings support the Examiner's conclusion of obviousness. *Perfect Web Techs., Inc. v. InfoUSA, Inc.*, 587 F.3d 1324, 1328–30 (Fed. Cir. 2009). In this case, the rejection fails to meet this required standard.

Accordingly, based on the record before us, the Examiner has not met the burden of establishing a proper prima facie case of obviousness. On this basis, we do not sustain the rejection of claims 1–2 as being unpatentable over Waterworth, Hoy, Youngeberg, and Ishida.

DECISION

We REVERSE the Examiner's rejection of claims 1–2.

REVERSED